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<p>1999-488932/41 A82 G02 (A14) MIZU- 1998.01.27 MIZUTANI PAINT MFG *JP 11209622-A 1998.01.27 1998-014477(+1998JP-014477) (1999.08.03) C08L 83/10, B01J 13/00 // C01B 33/149</p> <p>Aqueous dispersion useful for preparing coating materials - consisting of colloidal silica coated with vinyl (co)polymer(s) binding to silica surface with cationic polymerisation activator residue, and aqueous medium</p> <p>C1999-143578</p>	<p>A(12-B1) G(2-A2C, 2-A3)</p> <p>and weatherability. Gloss and mechanical properties of the coated film(s) are controlled readily by varying ratio of vinyl (co)polymer(s)/silica particles.</p>
<p>Aqueous dispersion (I) comprising (A) and (B) is claimed. (A) = colloidal silica coated with vinyl (co)polymer(s) binding to silica surface with cationic polymerisation activator residue; (B) = aqueous medium. Preparation of (I) comprising cationic (co)polymerisation of vinyl monomer(s) on silica surface in (B) is claimed, also.</p>	<p>PREFERRED (A) (A) is composed of 100 pts wt of (co)polymer(s) derived from one or more of (meth)acrylate monomer(s), aromatic vinyl monomer(s) or vinyl ester monomer(s), 3-500 pts wt of colloidal silica and cationic polymerisation activator(s) 0.1-20 pts wt.</p>
<p>USE (I) is useful as material for the preparation of coating material (II) (claimed).</p> <p>ADVANTAGE (II) gives coating films having far improved antifouling properties</p>	<p>EMBODIMENT Colloidal silica 100 pts wt is dispersed in (B) (preferably water), nonionic surfactant(s) and cationic polymerisation activator(s) 0.1-20 (opt. 1-10) pts wt are added. Monomer(s) to form (co)polymer layer is added to the above dispersion dropwise to become vinyl monomer(s) 100 pts wt and colloidal silica particles 3-500 (pref. 10-310, opt. 20-200) pts wt to obtain (I).</p> <p>EXAMPLE</p> <p>JP 11209622-A+</p>

<p>A vinyl monomer composition consisting of methyl methacrylate/n-butyl acrylate/methacrylic acid= 49/5/1(w/w) 5 g was added dropwise to a composition of 50 % colloidal silica 200 g, nonionic surfactant 3 g, 2,2'-azobisisimidinopropane dihydrochloride 2.0 g and distilled water 100 g at ordinary temperature. The vinyl monomer composition mentioned above 95g was added to the aqueous composition dropwise at 70 deg.C over 4 hours. The reaction mixture was stirred at 70 deg.C for a further 1 hour, and worked-up to obtain (I). (I) 200 g, titanium dioxide 80 g, thickener 5.0 g etc were blended to obtain white coating material.</p> <p>(CM) (13pp129DwgNo.0/0)</p>	<p>JP 11209622-A</p>
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